



WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Machine Id  
**912076**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0092811</b>	GFL0092784	GFL0080773
Sample Date		Client Info		<b>21 Feb 2024</b>	31 Oct 2023	28 Aug 2023
Machine Age	hrs	Client Info		<b>3376</b>	3376	3377
Oil Age	hrs	Client Info		<b>3376</b>	3376	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Changd</b>	N/A	Not Changd
Filter Changed		Client Info		<b>Not Changd</b>	N/A	Not Changd
Sample Status				<b>NORMAL</b>	NORMAL	ABNORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	<b>21</b>	12	25
Chromium	ppm	ASTM D5185m	>20	<b>1</b>	<1	1
Nickel	ppm	ASTM D5185m	>5	<b>4</b>	<1	▲ 11
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>1</b>	2	<1
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	0	1
Copper	ppm	ASTM D5185m	>330	<b>5</b>	<1	6
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

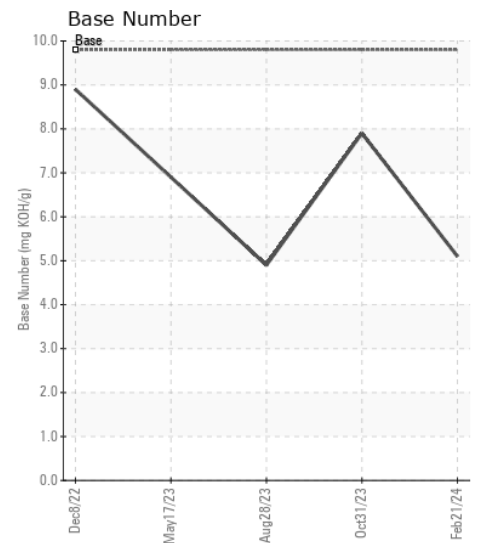
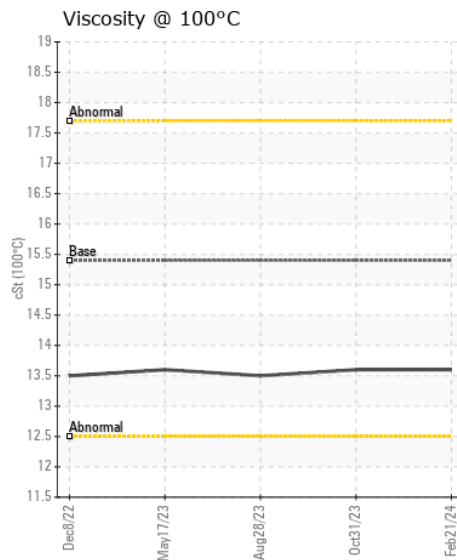
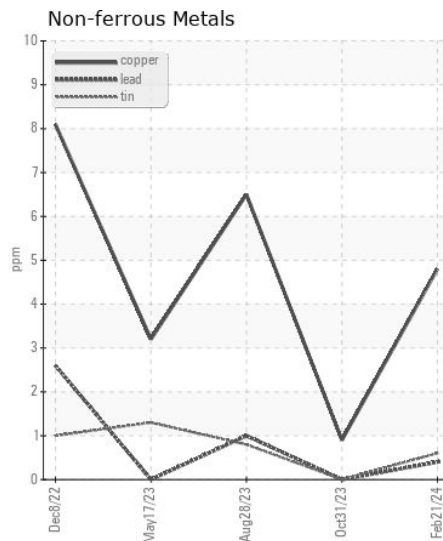
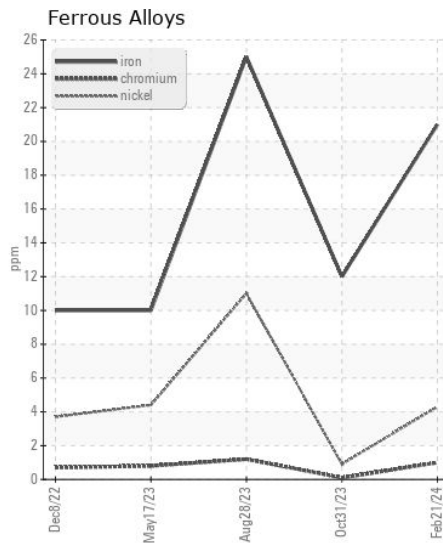
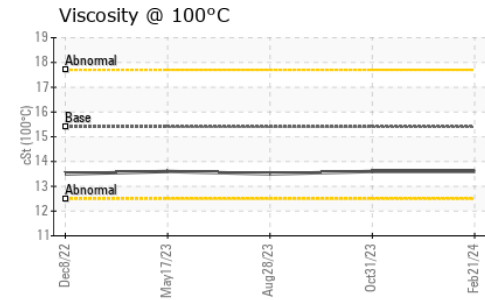
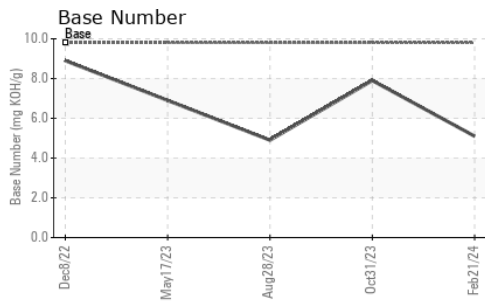
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>3</b>	3	5
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	1	3
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>4	<b>0.8</b>	0.6	0.7
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.1</b>	7.2	10.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>22.5</b>	19.5	22.8
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>8</b>	1	6
Boron	ppm	ASTM D5185m	0	<b>&lt;1</b>	2	2
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>59</b>	60	65
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	0	1
Magnesium	ppm	ASTM D5185m	1010	<b>911</b>	906	1079
Calcium	ppm	ASTM D5185m	1070	<b>1027</b>	1034	1197
Phosphorus	ppm	ASTM D5185m	1150	<b>917</b>	962	1059
Zinc	ppm	ASTM D5185m	1270	<b>1132</b>	1186	1393
Sulfur	ppm	ASTM D5185m	2060	<b>2221</b>	2934	3060
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>18.5</b>	14.6	19.6
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>5.1</b>	7.9	4.9
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.6</b>	13.6	13.5



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0092811  
**Lab Number** : 06099781  
**Unique Number** : 10898011  
**Test Package** : FLEET

**Received** : 26 Feb 2024  
**Tested** : 27 Feb 2024  
**Diagnosed** : 27 Feb 2024 - Wes Davis

**GFL Environmental - 455 - Flint**  
 2051 W. Bristol Rd  
 Flint Township, MI  
 US 48507  
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To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)